INTERNATIONAL MARITIME ORGANIZATION

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# DEVELOPMENT OF AN ACTION PLAN TO ADDRESS MARINE PLASTIC LITTER FROM SHIPS

## Draft action plan to address marine plastic litter from ships

**Submitted by Chile, Cook Islands, Fiji, Ghana, Iceland, Jamaica, Kiribati, Marshall Islands, Monaco, Norway, Palau, Solomon Islands, Tuvalu, Vanuatu and SPREP**

**SUMMARY**

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| *Executive summary:* | This document proposes a draft action plan to address marine plastic litter from ships, and includes a timeline for the development of this work while underscoring the need for the Committee to agree on some guiding principles. In order to progress this work, the co-sponsors request that the Committee establishes a working group at MEPC 73 and any relevant correspondence groups to assist PPR 6 and any other relevant Sub-Committee with the immediate work relating to this output under a dedicated agenda item. |
| *Strategic direction, if applicable:* | 1, 4 and 6 |
| *Output:* | 1.22, 4.3 and 6.7 |
| *Action to be taken:* | Paragraph 83 |
| *Related documents:* | MEPC 70/INF.20; MEPC 71/INF.40; A 30/7 and Corr.1, A 30/11/1; MEPC 72/15 and Corr.1, and MEPC 72/15/2 |

## Introduction

1 MEPC 72, in recognition of the urgency to address marine plastic litter from ships, agreed to include the new output "Development of an action plan to address marine plastic litter from ships" in the 2018-2019 biennial agenda of MEPC, assigning the PPR Sub-Committee as the associated organ, with a target completion year of 2020. In addition to the above, MEPC 72 also agreed to add the new output on the provisional agenda of MEPC 73, and also added it to the provisional list of working and drafting groups to be established at MEPC 73.

2 The present submission proposes a draft action plan to address marine plastic litter from ships, and includes a timeline for the development of this work while underscoring the need for the Committee to agree to some guiding principles. In order to progress this work, the co-sponsors request that the Committee establishes a working group at MEPC 73 and any relevant correspondence groups to assist PPR 6 and any other relevant Sub-Committee with the immediate work relating to this output under a dedicated agenda item.

**Background**

3 At its thirtieth session, the Assembly considered document A 30/11/1 (Australia et al.) related to Sustainable Development Goal (SDG) 14 and marine plastic litter, and took the following action:

.1 "The Assembly recognized the ongoing problem of marine plastic pollution, as addressed in MARPOL Annex V, which requires further consideration as part of a global solution within the framework of ocean governance, in pursuance of SDG 14's target to prevent and significantly reduce marine pollution of all kinds by 2025. The Assembly referred document A 30/11/1, together with the comments made in plenary, to MEPC 72 and LC 40/LP 13 for detailed consideration and action as deemed necessary" (A 30/D, paragraph 11.3); and

.2 "In recognizing the role that the Organization has and continues to play in addressing this problem, the Assembly encouraged Member States, Parties to MARPOL Annex V, and international organizations to submit concrete proposals to the competent bodies (MEPC 72 and LC 40/LP 13), taking into account those widely supported proposals in paragraphs 24 and 25 of the document, in accordance with the Committees' Method of Work" (A 30/D, paragraph 11.4).

4 Following the call from A 30, MEPC 72 considered document MEPC 72/15 and its corrigendum (Iceland et al.), proposing a new output to conduct a comprehensive review of the extent of marine plastic litter from ships, with a view to adopting further measures to tackle this global problem and determining the contribution of IMO to SDG 14.

5 MEPC 72 agreed to place the output "Development of an action plan to address marine plastic litter from ships" in the 2018-2019 biennial agenda of MEPC, assigning the PPR Sub-Committee as the associated organ, with a target completion year of 2020.

6 The issue of marine litter has also been on the agenda of the governing bodies of the London Convention and London Protocol. The thirty-eighth Consultative Meeting of Contracting Parties to the London Convention and the eleventh Meeting of Contracting Parties to the London Protocol adopted a "Recommendation to Encourage Action to Combat Marine Litter" (LC 38/16, annex 8). MEPC 72 agreed to invite the governing bodies of the London Convention/Protocol to submit their input on the proposed action plan to future sessions of the Committee (MEPC 72/17, paragraph 15.6.5). The governing bodies of the LC/LP will consider input for the proposed action plan at their meeting in November 2018.

**Identified issues**

7 Marine plastic litter (macro- and microplastics) enters the marine environment as a result of a wide variety of land- and sea-based activities but there are no reliable, accurate estimates of the quantities of material entering the marine environment from shipping. While a lack of certainty in scientific evidence can no longer be accepted as an excuse for no additional

actions, the co-sponsors believe IMO should conduct its first Study on Marine Plastic Litter from Ships and develop a Regulatory Framework Matrix for a future gap analysis.

8 The co-sponsors recognize the current challenge posed by knowledge gaps but consider:

.1 UNEP's report in 2016 on "Marine plastic debris and microplastics – global lessons and research to inspire action and guide policy change";

.2 GESAMP reports in 2015 and 2016 on "Sources, fate and effects of microplastics in the marine environment: A global assessment";

.3 UN Environment's report in 2018 on "State of Plastics";

.4 UN Environment's Report in 2018 on "Exploring the potential for adopting alternative materials to reduce marine plastic litter";

.5 UN Environment's Report in 2018 on "Single-use plastics: A roadmap for sustainability"; and

.6 FAO's Report in 2017 on "Microplastics in fisheries and aquaculture",

as positive foundations on which to base further work on marine plastic litter from ships.

9 Available studies demonstrate that despite the existing regulatory framework to prevent marine plastic littering from ships (fisheries, merchant shipping and offshore), regulatory requirements are not always followed and discharge violations under MARPOL Annex V occur (Secretariat of the Pacific Community/Pacific Islands Forum Fisheries Agency (SPC/FFA) Observer GEN-6 Reports from 2003-2015 found over 10,000 MARPOL violations from fishing vessels in the Western and Central Pacific Fisheries Commission region).

10 Whether due to poor waste and wastewater management, accidental losses that could have been prevented, or illegal dumping, the "leakage" of marine plastic litter into our oceans is critical.

11 As per paragraph 10 of document MEPC 72/15, the co-sponsors believe that special attention should be given to the below main sources of marine plastic litter from ships:

.1 abandoned discarded or lost fishing gear and fish aggregating devices;

.2 mismanagement of marine garbage; and

.3 accidents involving the loss of containers.

12 The existing policy and regulatory frameworks are either not sufficient or not properly enforced, and the enhancement of waste management practices and environmental awareness through education and behavioural change is necessary in order to reduce the input of plastics to the marine environment.

13 Given the above, the co-sponsors suggest that the action plan proposed to be developed should apply a holistic approach with a view to ensuring that all aspects of macro and micro marine plastic litter from vessels of all types are tackled.

14 Recognizing that multi-agency action is required to successfully tackle marine litter, the co-sponsors would advocate action by the Secretariat, to strengthen cooperation with other relevant agencies and bodies such as FAO and LC/LP. Additionally, the action plan should provide an avenue for work on harmonization between MARPOL, the LC/LP and FAO guidelines relating, for example, to port reception facilities and the prevention of dumping of wastes, recognizing that such collaboration and dialogue is essential for the successful implementation of the 2030 Agenda for Sustainable Development and the SDGs.

**IMO Marine Plastic Litter from Ships Study**

15 It is sometimes claimed that 80% of marine litter has a land-based source. However, this is a rough global estimate based on findings mainly from the shorelines, and marine litter from maritime activities may be underestimated. The data on marine litter on the seabed is scarce. Further, the situation varies significantly between regions. In many less inhabited and vulnerable areas, the litter on the shorelines can predominantly originate from maritime sources. The research data on marine debris show that plastics make up most of the marine litter; its proportion varying between 60% and 80% of the total, while accounting for 100% of floating litter.

16 Marine litter from shipping is more significant along busy shipping lanes. Likewise, recent studies assert that abandoned, lost or otherwise discarded fishing gear (ALDFG) represent a high percentage (in weight) of marine plastic litter, especially in heavily fished areas. Conducting an assessment of the levels and sources of marine plastic litter (macro- and microplastics) from ships (fisheries, merchant shipping and offshore), as well as their cause, would assist in deciding on what further measures are required.

17 The co-sponsors suggest that IMO carries out its first study on marine plastic (macro- and microplastic) litter from ships falling under MARPOL Annex V, in association with GESAMP, which has already demonstrated its expertise in this field. This first study on marine plastic litter from ships, if conferred to GESAMP, would be submitted to MEPC 74 to complement and support the action plan so developed. In this regard, the proposed IMO study could include the expertise and data from the LC/LP, particularly in the area of microplastics.

**Development of a Regulatory Framework Matrix**

18 In parallel to the drafting of the first study on marine plastic litter from ships, the co-sponsors suggest developing a matrix, listing all mandatory and non-mandatory IMO instruments and their applications (direct or indirect connection with marine plastic litter/macro- and microplastic).

19 Such a matrix would also include the best management practices in the sector, with a view to determining which practices would be advisable to prevent marine plastic litter from ships, as well as the availability of port reception facilities for garbage (plastic), considering the deficiencies reported by flag States. An outline of the matrix is provided in annex 1.

20 This matrix would be used as a "checklist" to assess the current existing policy and regulatory frameworks, with a view to strengthening and or developing new regulatory framework aiming at reducing marine plastic litter from ships.

21 This information should also be made available to the UN Environment Assembly (UNEA), under which there is now an open-ended expert group looking into gaps in existing international and regional management strategies and regulatory frameworks to prevent and reduce marine plastic litter and microplastics from all sources, and which shall report and present options for further work to the fourth session of UNEA in March 2019.

22 The data from the study on marine plastic litter from ships and the current existing policy and regulatory frameworks, particularly around port reception facilities, could feed into waste management opportunities such as recycling and the better development of a blue economy.

**Potential avenues for reducing marine macroplastic litter from fisheries**

23 The commercial fisheries sector has adopted plastics widely, because of the many advantages plastics offer over more traditional natural fibres. Losses in the fisheries sector comprise loss of fishing gear (e.g. nets, ropes, floats, fishing lines), loss of ancillary items (e.g. gloves, fish boxes, strapping bands), galley waste, and release of fibres and other fragments due to normal wear and tear (e.g. use of ground ropes).

24 Fishing gear may be lost at sea by accident, abandonment or deliberate disposal. This is commonly referred to as abandoned, lost or otherwise discarded fishing gear (ALDFG), and represents the largest category in terms of volume and potential impact out of all the sea-based sources. Fishing gear represent at least 46% of the Great Pacific Garbage Patch (GPGP) mass (Scientific Reports volume 8, Article number: 4666 (2018) – https://www.nature.com/articles/s41598-018-22939-w) and account for about a third of marine litter found in European seas, or over 11,000 tons per year (see "New proposal will tackle marine litter and 'ghost fishing'" – https://ec.europa.eu/fisheries/new-proposal-will-tackle-marine-litter-and-%E2%80%9Cghost-fishing%E2%80%9D_en).

25 Hotspot areas for illegal, unreported and unregulated fishing (IUU) lead to higher amounts of ALDFG, as vessels fishing illegally are more likely to abandon or lose their gear due to night fishing, gear conflict or to ensure port access.

26 IMO is contributing to the fight against IUU fishing through various instruments (STCW-F, Cape Town Agreement) and MARPOL Annex V prohibits the illegal discharge of all plastic and fishing gears and applies fully to fishing vessels.

27 However, IMO contributions against IUU fishing could be expanded, and it is public knowledge that the enforcement of MARPOL Annex V on fishing vessels is at its infancy when compared to the enforcement on merchant vessels.

28 The co-sponsors are of the opinion that IMO has the means to consider further measures to reduce marine plastic litter from fishing vessels to tackle this major environmental issue of ALDFG which also presents major risks to navigation.

***IMO Ship Identification Number Scheme mandatory for fishing vessels***

29 The voluntary application of the IMO Ship Identification Number Scheme to fishing vessels has with no doubt helped the fishing industry to move to a new era of transparency making control measures harder to circumvent and vessels more accountable and visible to fisheries' authorities.

30 Resolution A.1117(30) extended the application of the IMO Ship Identification Number Scheme to ships of 100 gross tonnage and above, including fishing vessels of steel and non-steel hull construction, and to all motorized inboard fishing vessels of less than 100 gross tonnage down to a size limit of 12 metres in length overall (LOA), authorized to operate outside waters under the national jurisdiction of the flag State). However, the IMO Ship Identification Number Scheme remains voluntary for this type of ships.

31 The 2012 Cape Town Agreement, once fully ratified, in force and implemented, will be an internationally binding agreement which will facilitate better control of fishing vessel safety by flag, port and coastal States. It will also contribute to the fight against illegal, unreported and unregulated (IUU) fishing since there is a direct correlation between safety of lives at sea, vessel safety, environmental compliance of a vessel and IUU.

32 The co-sponsors believe that IMO could consider making the IMO Ship Identification Number Scheme mandatory for all fishing vessels over 24 metres in length through an amendment to the Cape Town Agreement of 2012 once it enters into force. The voluntary application would remain for vessels under 24 metres in length to the size limit of 12 metres in length under resolution A.1117(30).

***Marking of fishing gear under MARPOL Annex V***

33 MARPOL Annex V prohibits the discharge of all plastic, including fishing gear, and requires that the loss of fishing gear be reported to the vessel's flag State and to the coastal State, in whose waters the loss occurred. In practice, this is not yet widely done.

34 Making mandatory the marking of all fishing gear with the fishing vessel relevant IMO Ship Identification Number referred to in paragraphs 29 to 32 above would allow the identification of the owner of the gear and, hence, would prevent a potential voluntary discharge in contravention of MARPOL Annex V while improving safety of navigation.

35 The co-sponsors suggest that IMO could, in close cooperation with FAO, strengthen MARPOL Annex V by making mandatory the marking of all fishing gear with the applicable fishing vessel's IMO Ship Identification Number.

36 Likewise, the co-sponsors are of the opinion that each item of fishing gear on board the fishing vessel could be recorded in the official logbook with its relevant number, hence facilitating the detection of MARPOL Annex V violations during port State control inspections.

***Reporting of discharge or accidental loss of fishing gear***

37 Regulation 10.6 of MARPOL Annex V requires the reporting of any discharge or accidental loss of fishing gear to the State whose flag the ship is entitled to fly and to the coastal State if the loss or the discharge occurs within waters subject to its jurisdiction. However, this required reporting is not widely performed and the information received is not reported to IMO since reporting to the Organization is not a requirement.

38 The co-sponsors believe that IMO could remind its Member States, by way of a circular, to collect this information from their registered fishing vessels and consider adopting a new mandatory reporting requirement to IMO under GISIS. Such data would enable IMO, but also other inter-governmental organizations or non-governmental organizations, to better address this issue based on relevant data.

***Port reception facilities for unwanted fishing gear***

39 In addition to reducing the incentive to discard old "retired" fishing gear at sea, accessible and affordable port reception facilities can encourage the reporting, retrieval and delivery of ALDFG.

40 There are several programmes designed to create incentives for port disposal of unwanted gear and of ALDFG retrieved at sea. For example, some government agencies manage an incentive programme, paying fishers to retrieve marine debris from coastal fishing grounds and deliver it to designated seaports.

41 IMO could consider developing some best management practices to avoid violation of MARPOL Annex V through the development of incentives for fishing vessels to retrieve derelict gear at sea that become entangled with their propellers or fishing gear, or that they encounter at their fishing grounds or in transit, and deliver it to port reception facilities.

***Detection and removal of ALDFG***

42 Consideration could be given to the adoption of measures requiring fishing vessels to have onboard equipment to retrieve ALDFG for captains to attempt to retrieve ALDFG generated from their vessel or ALDFG from other vessels that they encounter while at sea.

43 The co-sponsors suggest that an amendment to the Cape Town Agreement 2012, once in force, could require fishing vessels to have onboard equipment to retrieve ALDFG as a means of complementing the zero discharge requirement of MARPOL Annex V.

***Garbage Record Book mandatory for ships above 100 gross tonnage***

44 Every ship of 100 gross tonnage and above and every ship which is certified to carry 15 or more persons, and fixed or floating platforms must carry a garbage management plan (GMP), containing procedures for minimizing, collecting, storing, processing and disposing of garbage, including the use of the equipment on board.

45 Every ship of 400 gross tonnage and above, and every ship certified to carry 15 persons or more engaged in voyages to ports or offshore terminals under the jurisdiction of other Parties to MARPOL Annex V, and every fixed or floating platform must carry and maintain a Garbage Record Book (GRB).

46 The GRB and GMP facilitate enforcement and control of MARPOL Annex V regulations. Namely, the GRB and GMP are subject to examination by port State control officers during inspections to verify compliance with Annex V, which, in cases of violation, can lead to the detention of the ship.

47 However, Annex V fails to impose record-keeping requirements (GRB) for the handling of garbage to ships under 400 gross tonnage. This means that most of the global fishing fleet is not required to record discharge operations.

48 The co-sponsors suggest that this gap in the control could be one of the reasons why fishing vessels often discharge plastic debris into the sea and could be addressed via an amendment to regulation 10.3 of MARPOL Annex V to make the GRB mandatory for ships of 100 gross tonnage and above, limited to fishing vessels only if required.

49 In addition, there may be a need to revisit the *2012 Guidelines for the Development of Garbage Management Plans* (resolution MEPC.220(63)).

***STCW-F training course***

50 IMO is undertaking a comprehensive review of its treaty on training of fishing vessel personnel, the International Convention on Standards of Training, Certification and Watchkeeping for Fishing Vessel Personnel (STCW-F), 1995, which entered into force in 2012.

51 The aim is to update and revise the treaty, taking into account the unique nature of the fishing industry, the fishing working environment and the need to prevent damage to the marine environment.

52 The co-sponsors suggest that as part of the comprehensive review of the STCW-F, the HTW Sub-Committee could be tasked with reviewing chapter III (Basic safety training for all fishing vessel personnel) to ensure that all fishing vessel personnel, before being assigned any shipboard duties, receive basic training on marine environment awareness oriented on marine plastic litter including ALDFG.

***Port State control measures***

53 The majority of fishing vessels are less-covered by IMO conventions either because fishing vessels are specifically excluded, or because they are outside the size limitations, or because the flag State is not party to the relevant instruments.

54 Yet, some IMO conventions apply fully to fishing vessels, for example MARPOL Annex V whose rate of ratification extends its application to most fishing vessels. Such MARPOL Annex V coverage offers potential port State control measures on MARPOL Annex V implementation. This is even more relevant when it is public knowledge that the enforcement of MARPOL Annex V on fishing vessels is at its infancy when compared to the enforcement on merchant vessels.

55 The co-sponsors suggest the mechanism of international memoranda of understanding (MOUs) relating to port State control be used as an important and effective tool for enhancing strict application of MARPOL Annex V discharge requirements on fishing vessels.

**Potential avenues for reducing marine macroplastic litter from commercial shipping**

56 There should be no deliberate disposal of plastics from ships, or offshore structures, under the terms of MARPOL Annex V. This includes waters outside national jurisdiction. Unfortunately, there is evidence to suggest that this practice (deliberate disposal) still continues. There is an inherent difficulty in enforcing regulations. In addition to illegal disposal, there have been many occurrences of loss of cargo, particularly containers, which in some cases resulted in spillages of pellets.

***STCW – Marine environmental awareness***

57 Because it is difficult to accomplish direct enforcement of MARPOL Annex V regulations, other measures to reduce plastic pollution are very important. Environmental education is one of the tools to address the problem. Raising awareness of the detrimental consequences of operational or accidental pollution of the marine environment is needed to alter disposal practices. Therefore, the Seafarers Training, Certification and Watchkeeping (STCW) Code, requires that maritime officers gain knowledge on the prevention of pollution to the marine environment.

58 The co-sponsors acknowledge that in 2011, IMO validated the model course "Marine Environmental Awareness 1.38", and suggest that such training content could be revisited with a view to addressing more specifically marine plastic litter and making it mandatory for all crew on board.

***Garbage Record Book mandatory for ships above 100 gross tonnage***

59 As reported in paragraph 47 above, MARPOL Annex V fails to impose record-keeping requirements (GRB) for the handling of garbage for ships under 400 gross tonnage. This gap in the control could be one of the reasons why some vessels discharge plastic debris into the sea and could be addressed via an amendment to regulation 10.3 of Annex V.

60 The co-sponsors believe that the IMO Marine Plastic Litter from Ships Study, discussed in paragraphs 15 to 17 above, could help in identifying ships for which there might be a limited monitoring of MARPOL obligations related to plastic garbage and conclude that making the GRB mandatory for ships of 100 gross tonnage and above would be of benefit.

***Loss of containers***

61 In 2016, the international liner shipping industry transported approximately 130 million containers packed with cargo. Even with proper packing of the cargo into the container, correct container weight declaration and proper stowage and securing aboard ships, a number of factors ranging from severe weather and rough seas to more catastrophic and rare events such as ship groundings, structural failures, and collisions, result in containers being lost at sea.

62 With regard to the protection of the marine environment, the loss of containers has a very negative impact, since containers are filled with all types of items from food to cars to clothes to appliances. Most of these goods are made at least partly of plastic or are wrapped in plastic packaging, and sometimes what's being shipped is plastic itself. The lack of means to detect containers makes it almost impossible to recover them.

63 The most recent (2017) World Shipping Council (WSC) survey, which gathered input for 2014, 2015 and 2016, showed that the total number of containers lost at sea averaged 1,390 (including catastrophic losses), though the quoted figures could be questioned since no mandatory reporting requirement exist.

64 Document CCC 1/12 (France and Spain) does give potential avenues to be considered, such as:

.1 establishing a compulsory system of formatted declarations of loss of containers and setting up on board means to easily identify the exact number of losses;

.2 establishing an obligation to report through a standardized procedure the loss of (a) container(s) detailing: identification, cargo carried (particularly dangerous goods or harmful substances), or whether these containers may float and constitute a risk of collision with ships and boats; and

.3 providing a way to facilitate the tracking of containers in order to recover them as quickly as possible and limit the risks of pollution.

65 Spilled goods are not usually cleaned up because there are no international treaties that effectively combat the problem of consumer goods spills from cargo ships (although the Wreck Removal Convention sets the obligation to recover lost containers), while there are appropriate instruments for oil pollution.

66 The co-sponsors suggest that the points listed under paragraph 64 could be explored by IMO in parallel with the benefit of developing a new international instrument to address the lack of an appropriate legal framework related to consumer goods spills from cargo ships.

***Port reception facilities***

67 With regard to relation to port reception facilities, it may be necessary to determine whether waste collection needs to be improved and, in relation to plastic management, whether there is a need to improve the management of plastics on board the ships taking into account the reality of the sector.

68 The IMO Marine Plastic Litter from Ships Study, proposed in paragraphs 15 to 17 above, would assist in identifying the causes of marine plastic litter (macro and microplastics) from ships. Gathering information on knowledge, awareness, attitudes and motives for plastic disposal practices of seafarers, could help to develop programmes targeted at shipping.

69 The development of a Regulatory Framework Matrix, as suggested in paragraph 18 to 22 above, could help in identifying existing industry best management practices that could be used as guidelines for ships covered by MARPOL Annex V.

70 The co-sponsors suggest developing the concept of circular economy within the shipping industry, considering the economic, social and environmental costs of marine plastic litter. The development of guidelines to reuse, reduce and recycle (3 Rs) plastic materials on board could be of benefit and in line with SDG 12: Responsible Consumption and Production.

**Potential avenues for reducing marine microplastic litter from shipping**

***Wear from boat hulls***

71 Protective coatings are applied to all parts of vessels (hull, superstructure and equipment on deck) and contribute to the spreading of microplastics to the environment. According to the OECD, it can be assumed that about 6% of the solid coating content on ships is spilled directly into the sea during the lifetime of the coating.

72 The IMO Marine Plastic Litter from Ships Study, proposed in paragraphs 15 to 17, could explore this source of microplastic litter from ships for further potential measures.

***Grey water***

73 Ship grey water is generally considered accommodation (e.g. shower, bath), laundry, dishwasher and galley wastewater, and is distinct from drainage from toilets, urinals, hospitals and cargo spaces. Wastewater from shop sinks and deck drains in non-engine rooms, whirlpools, garbage and laundry room floor drains, and refrigerator and air conditioner condensate, inter alia, is also routed through the grey water system.

74 Grey water is produced in greater quantities than sewage on commercial vessels. On cruise ships, grey water can constitute 90% of liquid waste generated on board. The U.S. EPA, based on 29 cruise ships, indicated average grey water production to be 255 litres per person per day (l/p/d). DNV indicated crew generation rates of 105 l/p/d for tankers, 127 l/p/d for cargo ships, and 175 l/p/d for offshore vessels (MEPC72/16/6)).

75 The microplastic content in grey water would derive from personal care products, washing of laundry, etc., and should be correlated to the number of persons on board the ship. Grey water is not considered garbage in the context of MARPOL Annex V. To date, there are no restrictions on the discharge of grey water, whereas ship sewage has been regulated under MARPOL Annex IV since 2003.

76 The co-sponsors suggest that IMO could consider regulating the discharge of grey water upon review of the IMO Marine Plastic Litter from Ships Study, noting that grey water does also contain a variety of harmful substances to the environment.

***Loss of Container***

77 Shipping accidents have also resulted in the introduction of microplastics directly into the ocean. Probably the best-known incident was the loss of six shipping containers from a

freighter off Hong Kong during typhoon Vincente in July 2012. It is thought that 150 tonnes of pre-production polypropylene (PP) pellets were lost initially, with many washing up on local beaches.

78 The proposed potential avenues to address this issue are dealt with in paragraphs 61 to 66.

**Proposals**

79 As an urgent action, MEPC 73 should decide which proposed measures to follow up and start developing an action plan, including proposals for possible new outputs needed to implement the action plan.

80 A working group should be established during MEPC 73 to develop the action plan, including consideration on the need for any new outputs for consideration by MEPC 74.

81 In considering a draft action plan as an outcome of the Working Group so established, and given the urgency of the matter, MEPC 73 should also consider the need to establish a correspondence group to further the work intersessionally.

82 As a starting point for an action plan, a proposed timeline of the activities needed to move forward with the proposed measures is set out in annex 2.

**Action requested of the Committee**

83 The Committee is invited to consider the proposals put forward in this document and take action as appropriate.

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**ANNEX 1**

**OUTLINE OF REGULATORY INSTRUMENTS THAT MAY BE OF RELEVANCE TO PLASTIC MARINE LITTER**

| **Regulatory instruments related with Plastic Marine litter** | | | | | |
|---|---|---|---|---|---|
| Instrument | Resolution | Voluntary/ Mandatory | Regulation/Paragraphs | Direct/ Indirect | Macro/ Micro |
| MARPOL Annex V | | M | 1.6, 1.9 Definitions<br>3.2 Discharges<br>7.1.4 Exceptions<br>8 Reception facilities<br>10.2 Plan<br>10.3 Record book<br>10.6 Accidental loss of fishing gear reporting | Direct | Both, mainly macro |
| MARPOL Annex IV | | M | 1.3 Definitions<br>9 Sewage systems<br>11 Discharge of Sewage<br>12 Reception facilities | Indirect | Micro |
| 2012 Guidelines for Garbage Management | MEPC.220(63) | V | 2.2 Fishing Gear<br>Table 1<br>2.3 Garbage handling<br>2.4 Collection<br>2.4.8 Fishing gear<br>2.6 Storage<br>Table 2<br>4 Training and Education<br>5 Port reception facilities<br>6 Enhancement of compliance | Direct | Both, mainly macro |
| Guidelines for ensuring the adequacy of port waste reception facilities | MEPC.83(44) | V | 4 Operational needs<br>5 Planning<br>6 Assessment Strategy<br>7 Type and capacity | Direct | Both |
| London Convention/Protocol | TDB | M | …. | Direct | Both |
| STCW | …. | M | …. | Indirect | Both, mainly macro |
| STCW-F | …. | M | Chapter III …. | Indirect | Both, mainly macro |
| 2012 Cape Town Agreement | …. | M | …. | Indirect | …. |
| Nairobi Convention | …. | M | …. | Indirect | …. |

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**ANNEX 2**

**OUTLINE OF AN ACTION PLAN TO ADDRESS MARINE PLASTIC LITTER FROM SHIPPING**

| Year | IMO Body | Actions |
|---|---|---|
| 2018 | MEPC 73 | • Development of a draft Action Plan to address marine plastic litter from ships.<br>• Development of a Regulatory Framework Matrix as an annexure to the Action Plan.<br>• Draft Term of Reference for the first IMO Marine Plastic Litter from Ships Study.<br>• Place the output on the 2018-2019 biennial agenda of the PPR, III, CCC, SSE and HTW Sub-Committees to begin work as and when requested by MEPC.<br>• Instruct MEPC 74 to consider the adoption of the Action Plan with the final work being undertaken by an established correspondence group.<br>• Develop proposals for new outputs (if required) for MEPC 74 consideration. |
| 2018 | LC/LP | • Input from LC/LP following meeting of the Governing Bodies. |
| 2018 | Secretariat/ MEPC 73 | • Work on increased harmonization between MARPOL, LC/LP and FAO guidelines relating for example to port reception facilities and the prevention of dumping of wastes. |
| 2019 | MEPC 74 | • Review the first IMO Marine Plastic Litter from Ships Study<br>• Establish a Working group to finalize the Action Plan if required.<br>• Adopt the Action Plan. |
| 2019 | CCC 6 | Based on the decision made at MEPC 74:<br>• Develop a compulsory system of formatted declarations of loss of containers and setting up on board means to easily identify the exact number of losses.<br>• Develop an obligation to report through a standardized procedure the loss of (a) container(s) detailing: identification, cargo carried (particularly dangerous goods or harmful substances) or whether these containers may float and constitute a risk of collision with ships and boats.<br>• Provide a way to facilitate the tracking of containers in order to recover them as quickly as possible and limit the risks of pollution. |

| | | |
|---|---|---|
| 2019 | III 6 | Based on the decision made at MEPC 74:<br>• Consider the inadequacy of Port Reception Facilities for plastic litter and specifically fishing gears.<br>• Develop incentives for port disposal of unwanted fishing gear and of ALDFG retrieved at sea.<br>• Suggest the mechanism of international MOUs relating to port State control be used as an important and effective tool for enhancing strict application of MARPOL Annex V discharge requirements on fishing vessels. |
| 2020 | CCC 7 | • Continue the work of CCC 6. |
| 2020 | III 7 | • Continue the work initiated at III 6. |
| 2020 | PPR 7 | • Develop amendment to MARPOL Annex V for the marking of fishing gears.<br>• Develop amendment to regulation 10.6 of MARPOL Annex V to require the reporting of any discharge or accidental loss of fishing gear by the flag State to the IMO Secretariat.<br>• Develop amendment to regulation 10.3 of MARPOL Annex V to make the GRB mandatory for ships of 100 GT and above.<br>• Develop a new Annex to MARPOL to regulate the discharge of grey water noting that grey water does also contain a variety of harmful substances to the environment. |
| 2020 | HTW 7 | • Review chapter III of STCW-F (Basic safety training for all fishing vessel personnel) to ensure that all fishing vessel personnel, before being assigned to any shipboard duties, receive basic training on marine environment awareness oriented on marine plastic litter including ALDFG.<br>• Review the 2011 IMO model course "Marine Environmental Awareness 1.38" to address more specifically marine plastic litter and be made mandatory to all crew on board. |
| 2020 | SSE 7 | • Develop amendment to the 2012 Cape Town Agreement to require fishing vessels to have onboard equipment to retrieve ALDFG as a means to complement the zero discharge requirement of MARPOL Annex V.<br>• Develop amendment to the 2012 Cape Town Agreement to make the IMO Ship Identification Number Scheme mandatory for all fishing vessels over 24 metres in length. |
| 2020 | LEG 107 | • Develop a new international instrument to address the lack of appropriate legal framework related to consumer goods spills from cargo ships. |
| 2021 | PPR 8<br>CCC 8<br>HTW 8 | • Continue the work of PPR 7.<br>• Continue the work of CCC 7.<br>• Continue the work of HTW 7. |

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| 2021 | LEG 108 | • Continue the work of LEG 107. |
| 2021 | MEPC 77<br>MSC 104 | • Adopt relevant resolutions<br>• Adopt relevant resolutions |
| 2022 | LEG 109 | • Finalize text for new international instrument to address the lack of appropriate legal framework related to consumer goods spills from cargo ships. |